

SERVICE MANUAL Level 1&2

Nokia 701

RM-774



Transceiver characteristics

Band

GSM 850/900/1800/1900 MHz
WCDMA 850/900/1700/1900/2100 MHz

Display

3.5-inch nHD resolution (640x360); TFT-LCD

Camera

8 megapixel full focus (EDOF) CMOS, dual LED-flash,
1280x720 30fps HD video recording

Operating System

Symbian Belle

Connections:

WLAN IEEE802.11 b/g/n with UPnP support
Micro USB 2.0
Bluetooth 3.0 + EDR
NFC (Near Field Connection)
Stereo audio out via 3.5mm AV connector

Talk time	Standby
GSM: Up to 6.9 hours	GSM: Up to 527 hours
WCDMA: Up to 4.5 hours	WCDMA: Up to 469 hours

Note:

Talk times are dependent on network parameters and phone settings

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CHANGE HISTORY

Status	Version No.	Date	Comments
Approved	1.0	25.08.2011	First approved version

The purpose of this document is to help NOKIA service levels 1 and 2 workshop technicians to carry out service to NOKIA products. This Service Manual is to be used only by authorized NOKIA service suppliers, and the content of it is confidential. Please note that NOKIA provides also other guidance documents (e.g. Service Bulletins) for service suppliers, follow these regularly and comply with the given instructions.

While every endeavor has been made to ensure the accuracy of this document, some errors may exist. If you find any errors or if you have further suggestions, please notify NOKIA using the address below:

Nokia Care Academy
service.manuals@nokia.com

Please keep in mind also that this documentation is continuously being updated and modified, so watch always out for the newest version.

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The availability of particular products may vary by region.

IMPORTANT

This document is intended for use by qualified service personnel only.

2. WARNINGS AND CAUTIONS

Please refer to the phone's user guide for instructions relating to operation, care and maintenance including important safety information. Note also the following:

2.1 Warnings

1. CARE MUST BE TAKEN ON INSTALLATION IN VEHICLES FITTED WITH ELECTRONIC ENGINE MANAGEMENT SYSTEMS AND ANTI-SKID BRAKING SYSTEMS. UNDER CERTAIN FAULT CONDITIONS, EMITTED RF ENERGY CAN AFFECT THEIR OPERATION. IF NECESSARY, CONSULT THE VEHICLE DEALER/MANUFACTURER TO DETERMINE THE IMMUNITY OF VEHICLE ELECTRONIC SYSTEMS TO RF ENERGY.
2. THE HANDPORTABLE TELEPHONE MUST NOT BE OPERATED IN AREAS LIKELY TO CONTAIN POTENTIALLY EXPLOSIVE ATMOSPHERES, EG PETROL STATIONS (SERVICE STATIONS), BLASTING AREAS ETC.
3. OPERATION OF ANY RADIO TRANSMITTING EQUIPMENT, INCLUDING CELLULAR TELEPHONES, MAY INTERFERE WITH THE FUNCTIONALITY OF INADEQUATELY PROTECTED MEDICAL DEVICES. CONSULT A PHYSICIAN OR THE MANUFACTURER OF THE MEDICAL DEVICE IF YOU HAVE ANY QUESTIONS. OTHER ELECTRONIC EQUIPMENT MAY ALSO BE SUBJECT TO INTERFERENCE.

2.2 Cautions

1. Servicing and alignment must be undertaken by qualified personnel only.
2. Ensure all work is carried out at an anti-static workstation and that an anti-static wrist strap is worn.
3. Use only approved components as specified in the parts list.
4. Ensure all components, modules screws and insulators are correctly re-fitted after servicing and alignment.
5. Ensure all cables and wires are repositioned correctly

3. ESD PROTECTION



Nokia requires that service points have sufficient ESD protection (against static electricity) when servicing the phone.

Any product of which the covers are removed must be handled with ESD protection. The SIM card can be replaced without ESD protection if the product is otherwise ready for use.

To replace the covers ESD protection must be applied.

All electronic parts of the product are susceptible to ESD. Resistors, too, can be damaged by static electricity discharge.

All ESD sensitive parts must be packed in metallized protective bags during shipping and handling outside any ESD Protected Area (EPA).

Every repair action involving opening the product or handling the product components must be done under ESD protection.

ESD protected spare part packages **MUST NOT** be opened/closed out of an ESD Protected Area.

For more information and local requirements about ESD protection and ESD Protected Area, contact your local Nokia After Market Services representative.

4. CARE AND MAINTENANCE

This product is of superior design and craftsmanship and should be treated with care. The suggestions below will help you to fulfil any warranty obligations and to enjoy this product for many years.

- Keep the phone and all its parts and accessories out of the reach of small children.
- Keep the phone dry. Precipitation, humidity and all types of liquids or moisture can contain minerals that will corrode electronic circuits.
- Do not use or store the phone in dusty, dirty areas. Its moving parts can be damaged.
- Do not store the phone in hot areas. High temperatures can shorten the life of electronic devices, damage batteries, and warp or melt certain plastics.
- Do not store the phone in cold areas. When it warms up (to its normal temperature), moisture can form inside, which may damage electronic circuit boards.
- Do not drop, knock or shake the phone. Rough handling can break internal circuit boards.
- Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the phone.
- Do not paint the phone. Paint can clog the moving parts and prevent proper operation.
- Use only the supplied or an approved replacement antenna. Unauthorised antennas, modifications or attachments could damage the phone and may violate regulations governing radio devices.

All of the above suggestions apply equally to the product, battery, charger or any accessory.

5. BATTERY INFORMATION

Note: A new battery's full performance is achieved only after two or three complete charge and discharge cycles! The battery can be charged and discharged hundreds of times but it will eventually wear out.

When the operating time (talk-time and standby time) is noticeably shorter than normal, it is time to buy a new battery. Use only batteries approved by the phone manufacturer and recharge the battery only with the chargers approved by the manufacturer.

Unplug the charger when not in use. Do not leave the battery connected to a charger for longer than a week, since overcharging may shorten its lifetime.

If left unused a fully charged battery will discharge itself over time. Temperature extremes can affect the ability of your battery to charge.

For good operation times with Ni-Cd/NiMH batteries, discharge the battery from time to time by leaving the product switched on until it turns itself off (or by using the battery discharge facility of any approved accessory available for the product).

Do not attempt to discharge the battery by any other means. Use the battery only for its intended purpose.

Never use any charger or battery which is damaged.

Do not short-circuit the battery. Accidental short-circuiting can occur when a metallic object (coin, clip or pen) causes direct connection of the + and - terminals of the battery (metal strips on the battery) for example when you carry a spare battery in your pocket or purse. Shortcircuiting the terminals may damage the battery or the connecting object.

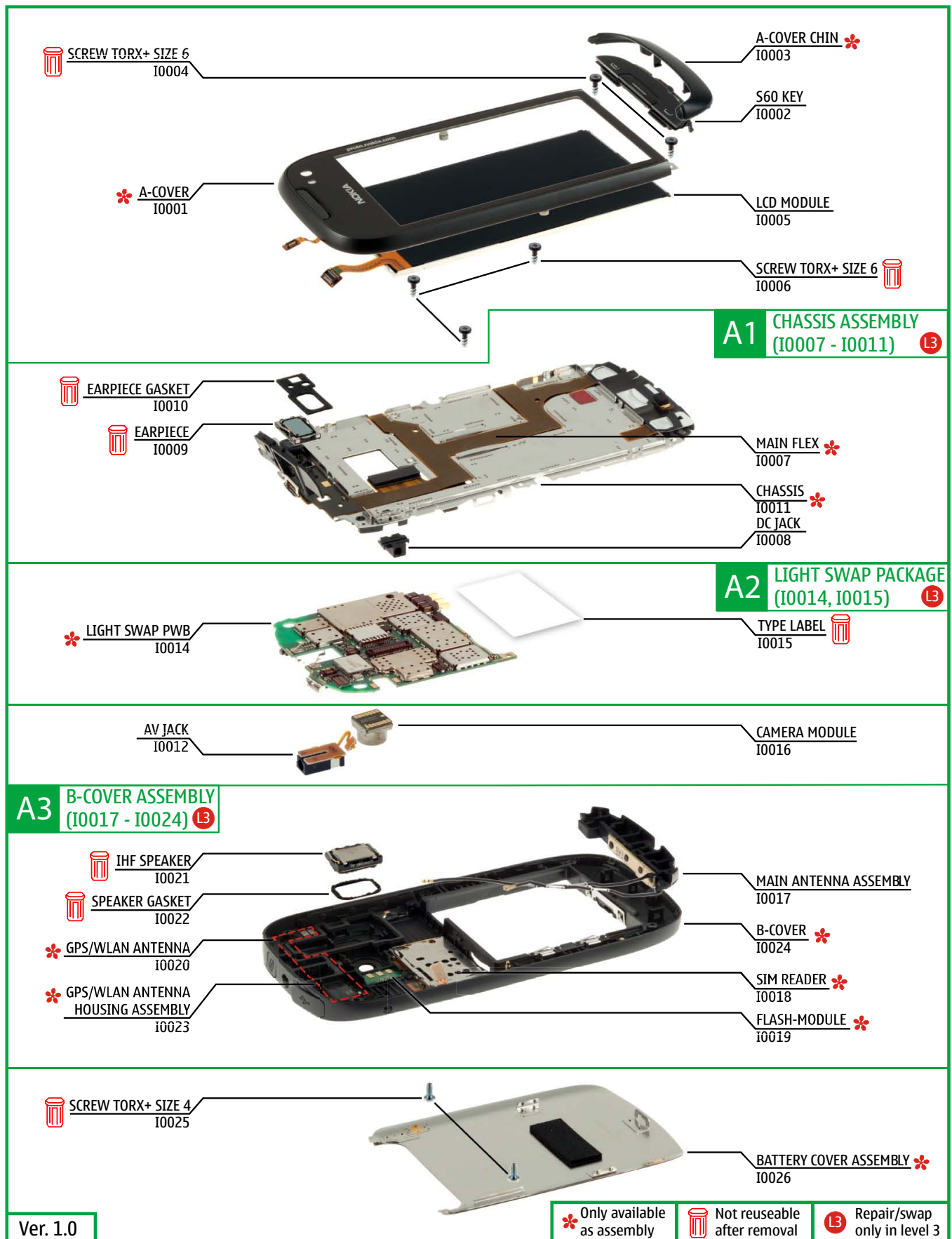
Leaving the battery in hot or cold places, such as in a closed car in summer or winter conditions, will reduce the capacity and lifetime of the battery. Always try to keep the battery between 15°C and 25°C (59°F and 77°F).

A phone with a hot or cold battery may temporarily not work, even when the battery is fully charged. Batteries' performance is particularly limited in temperatures well below freezing.

Do not dispose batteries in a fire! Dispose of batteries according to local regulations (e.g. recycling).

Do not dispose as household waste.

6. EXPLODED VIEW



7. SERVICE DEVICES



BL-5K Battery



SS-231 Cable connector tool



SS-250 Display removal tool



SS-210 Camera removal tool



FLS-5 Flash Device



CA-101D Service Cable



AC-15 Travel Charger



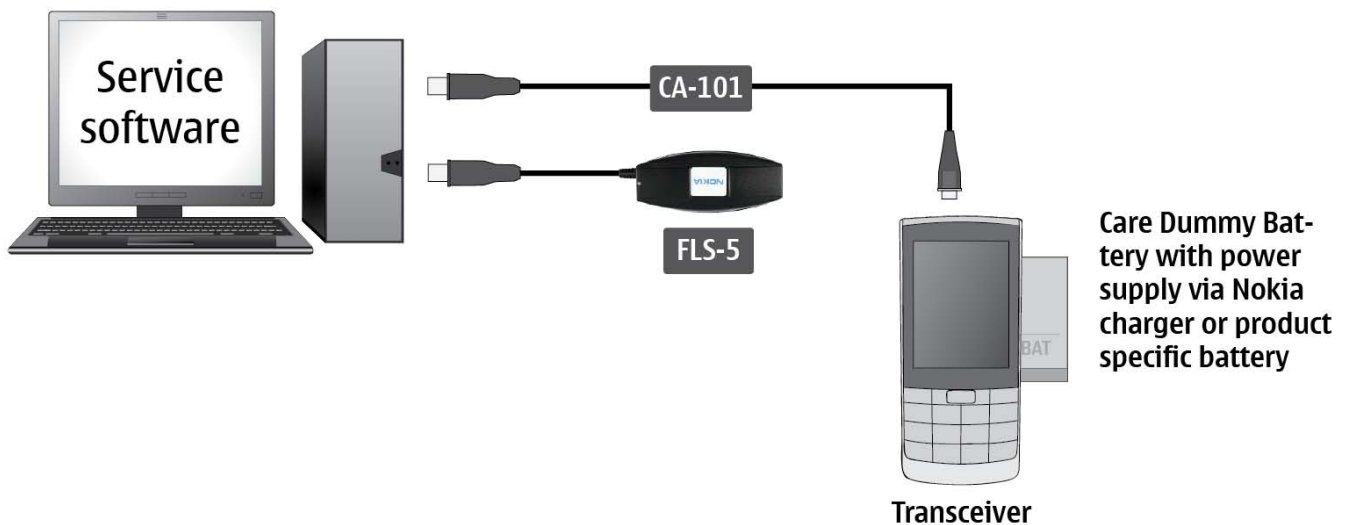
Nokia Standard Toolkit (v2)

For more information, refer to the Service Bulletin (SB-011) on Nokia Online. Supplier or manufacturer contacts for tool re-order can be found in "Recommended service equipment" document on Nokia Online.

8. SOFTWARE UPDATE

Flash concept (Point of Sale)

To use the FLS-5 Flash Dongle, follow the user guide inside the sales package. Please check always for the latest version of flash software, which is available on Nokia Online.



9. DISASSEMBLY INSTRUCTIONS



1) Nokia 701 disassembly.



2) For disassembling you need the Nokia Standard Toolkit version 2, camera removal tool SS-210, SS-231, display removal tool SS-250 and the AV plug.



3) Protect the A-COVER with protective film.



4) Push the release button to detach the BATTERY COVER.



5) Remove the BATTERY COVER. If there is a battery inserted, remove it also.



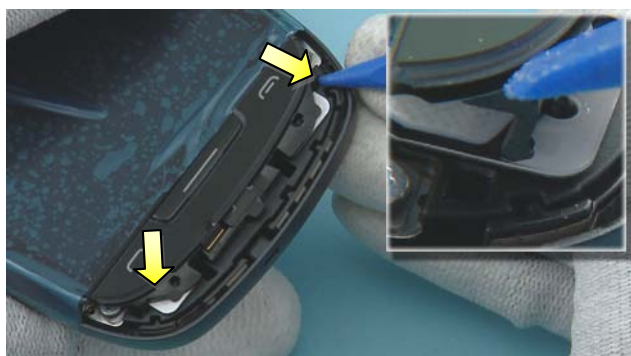
6) Unscrew the two TORX+ size 4 screws in the order shown. Do not use them again!



7) Use the SRT-6 to release the two clips holding the A-COVER CHIN.



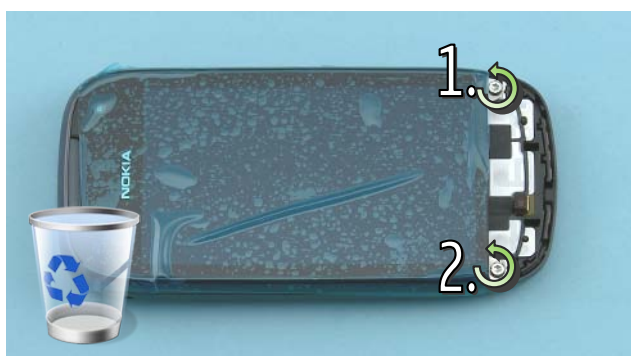
8) Remove the A-COVER CHIN by pulling it into direction shown.



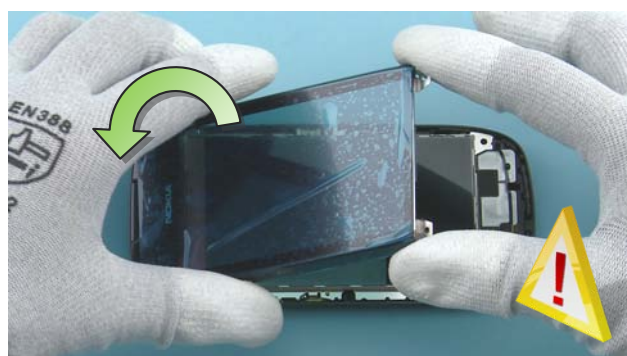
9) Use the sharp end of the SS-93 to release the S-60 KEY.



10) Remove the S-60 KEY by pulling it into direction shown.



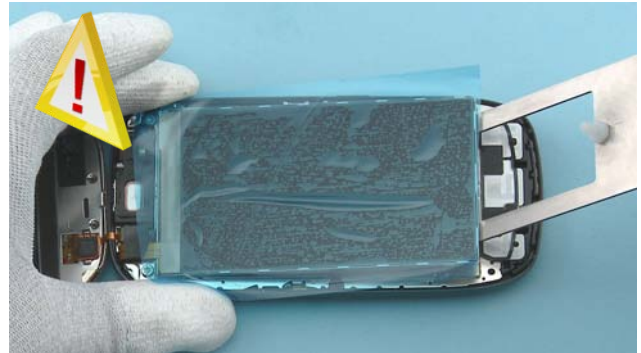
11) Unscrew the two TORX+ size 6 screws in the order shown. Discard the screws!



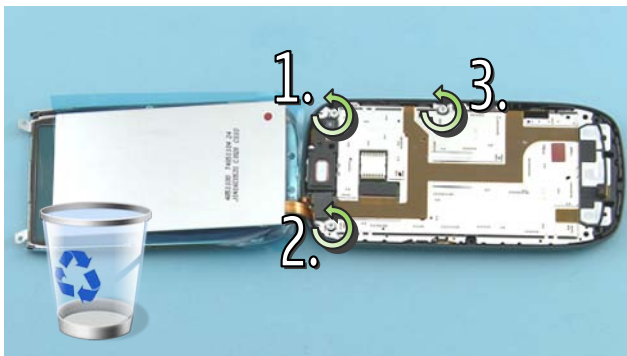
12) Turn the A-COVER over very carefully. Make sure the flexes on top of the device are not damaged!



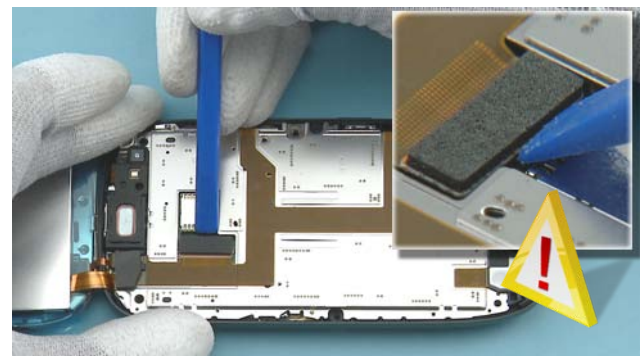
13) Protect the LCD MODULE and the back side of the A-COVER with protective film.



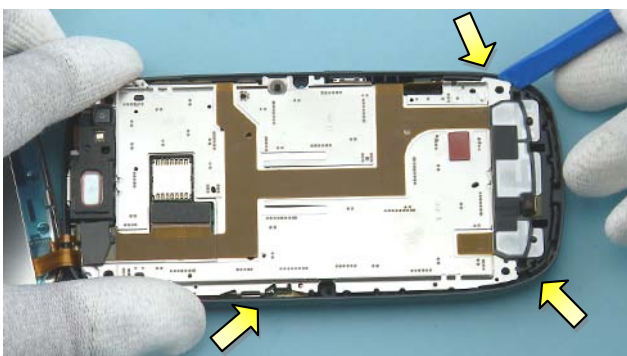
14) Use the SS-250 to carefully lift up the LCD MODULE. Then turn the LCD MODULE over and place it on top of the A-COVER.



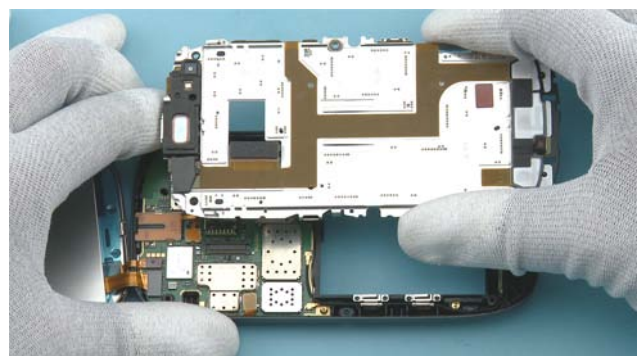
15) Unscrew the three TORX+ size 6 screws in the order shown. Discard the screws!



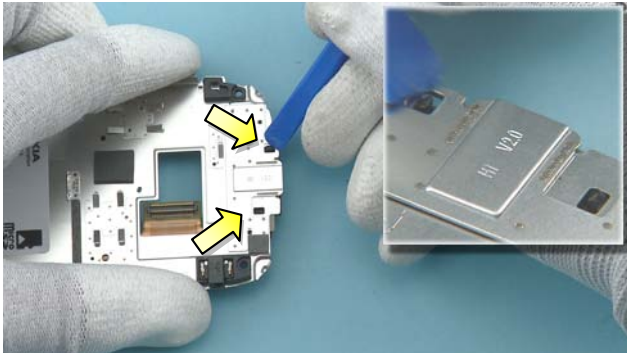
16) Use the SS-93 to open the MAIN FLEX FOIL connector. Be careful not to damage the connector!



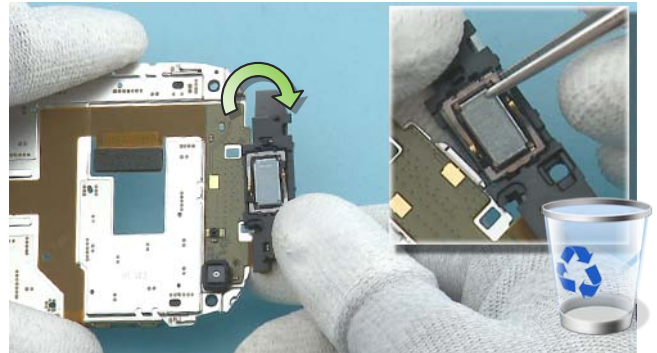
17) Use the SS-93 to detach the CHASSIS from the B-COVER.



18) Lift up the CHASSIS.



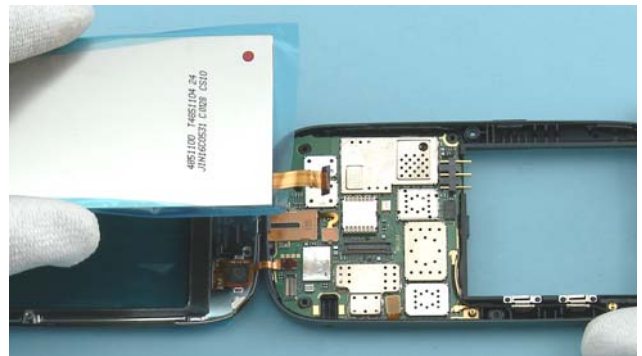
19) Use the SS-93 to detach the EARPIECE HOLDING clips on the type label side of the CHASSIS.



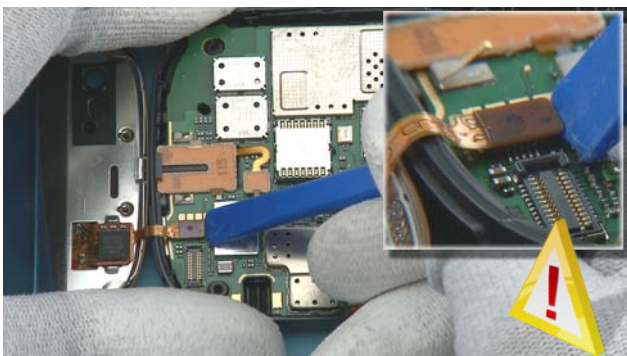
20) Turn the EARPIECE HOLDING over and remove the EARPIECE with the tweezers. The EARPIECE cannot be used again!



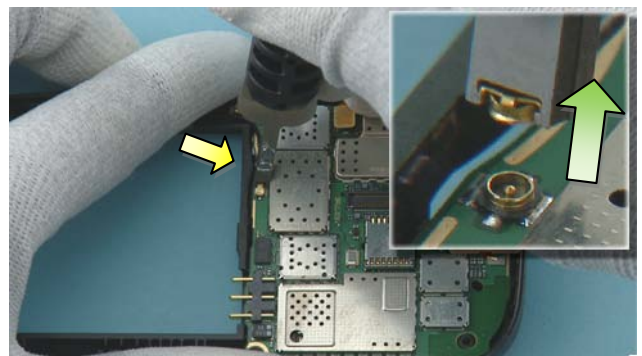
21) Use the SS-93 to open the LCD MODULE connector. Be careful not to damage the connector or components nearby!



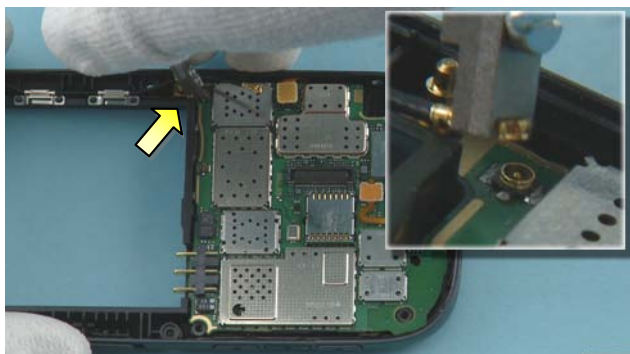
22) The LCD MODULE can now be separated.



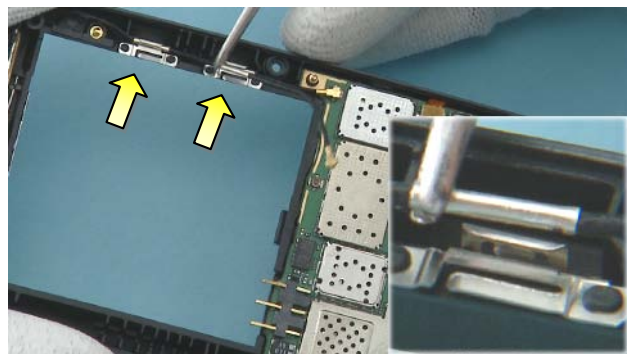
23) Use the SS-93 to open the TOUCH PANEL connector. Be careful not to damage the connector or components nearby! The A-COVER can now be removed.



24) Use the SS-231 to open the MAIN ANTENNA connector. Place the SS-231 correctly and then lift it up.



25) Open also the second connector of the MAIN ANTENNA with the SS-231.



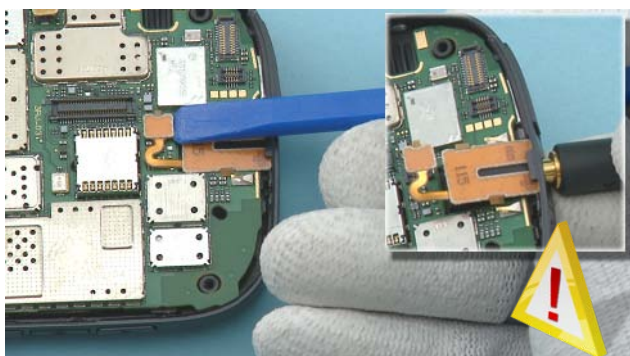
26) Use the tweezers to release the antenna cables from the hooks.



27) Use the SS-93 to lever out the MAIN ANTENNA.



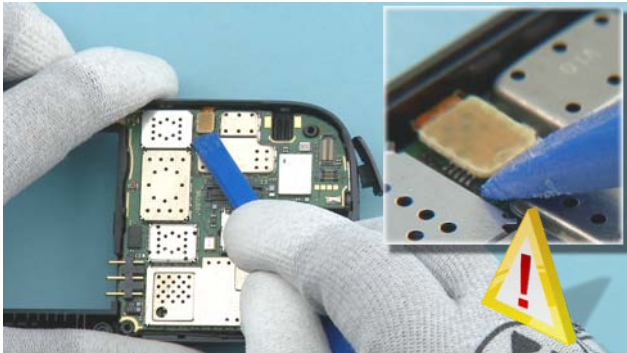
28) Separate the MAIN ANTENNA with the tweezers.



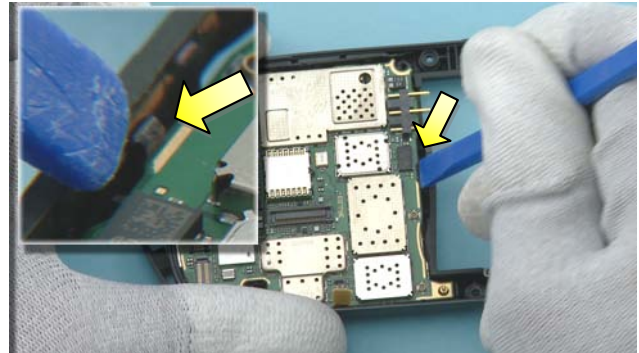
29) Disconnect the AV JACK connector with the SS-93. Be careful not to damage any nearby components. Use the AV plug to lever out the AV JACK.



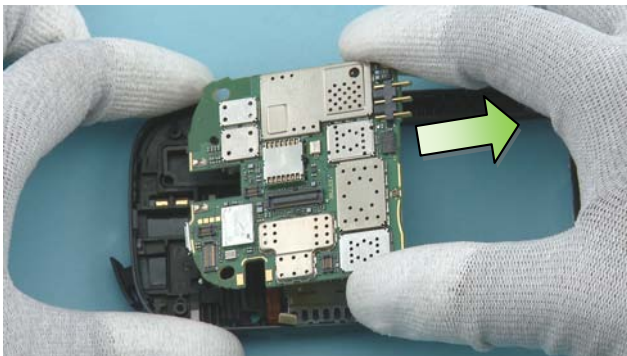
30) Open the USB door.



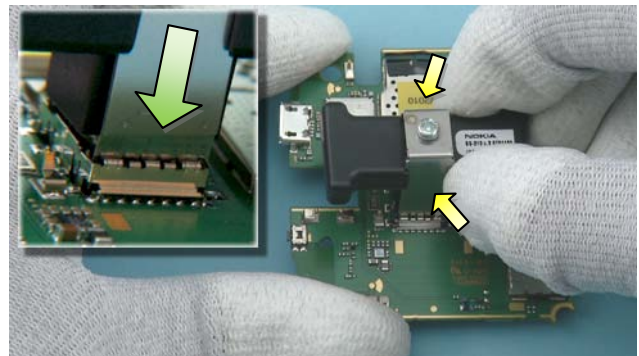
31) Use the SS-93 to carefully open the SIM CARD READER connector. Be careful not to damage the connector while opening it!



32) Use the SS-93 to release the clip holding the ENGINE BOARD.



33) Remove the ENGINE BOARD by pulling it into direction shown.



34) To release the CAMERA MODULE, push down the camera removal tool SS-210 until camera retaining clips are released. Keep the sides of the SS-210 pressed and lift up the SS-210 to remove the CAMERA MODULE.



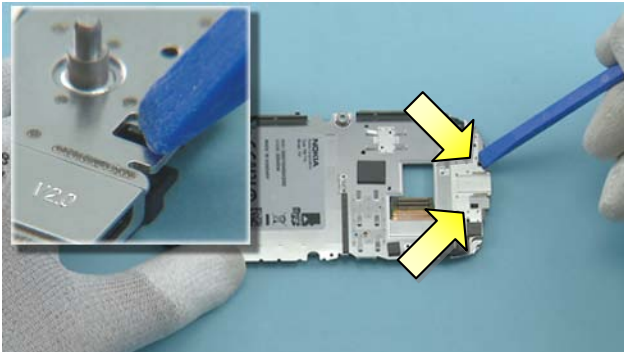
35) Use the dental tool to lift up the IHF SPEAKER. Remove also the SPEAKER GASKET. They cannot be used again! While using the dental tool, be careful not to injure yourself!



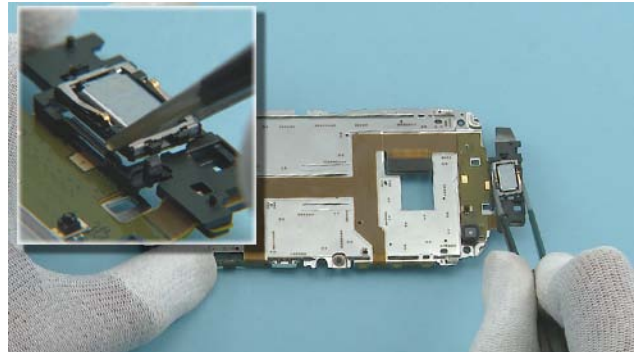
36) The Nokia 701 disassembly is now complete.

-END OF DISASSEMBLY-

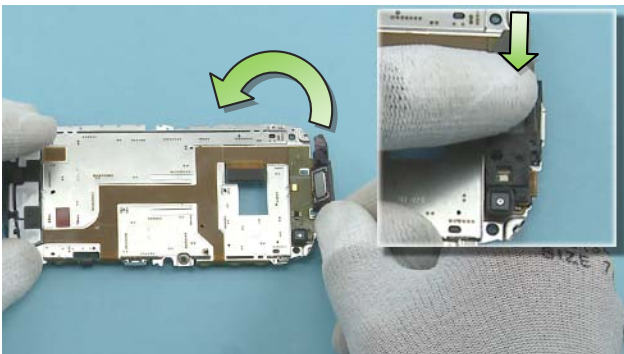
10. ASSEMBLY HINTS



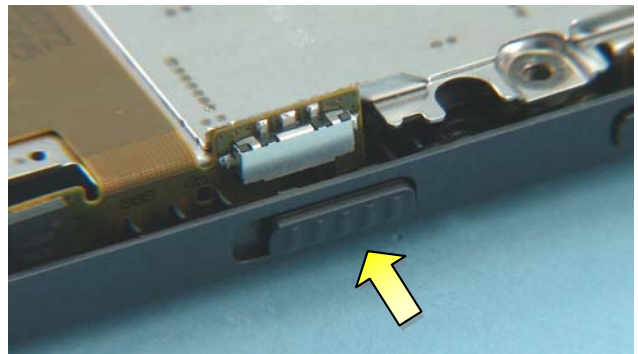
1) Use the SS-93 to detach the two EARPIECE HOLDING clips and turn the CHASSIS over.



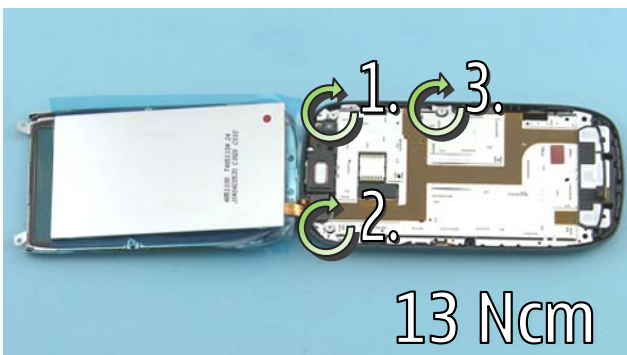
2) Turn over the EARPIECE HOLDING and place the EARPIECE to the EARPIECE HOLDING with the tweezers. Make sure that the EARPIECE is placed correctly.



3) Turn the EARPIECE HOLDING over and press it down gently to attach the clips.



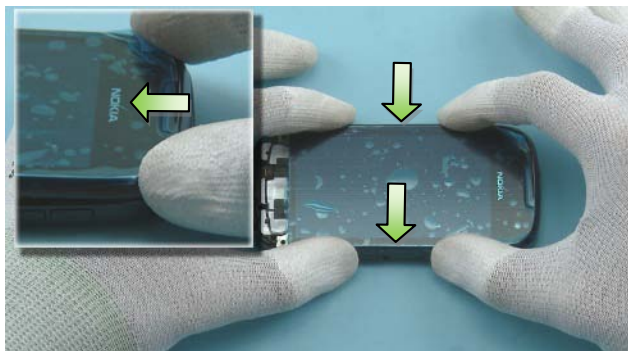
4) When assembling the CHASSIS, make sure that the LOCK KEY is in the correct position.



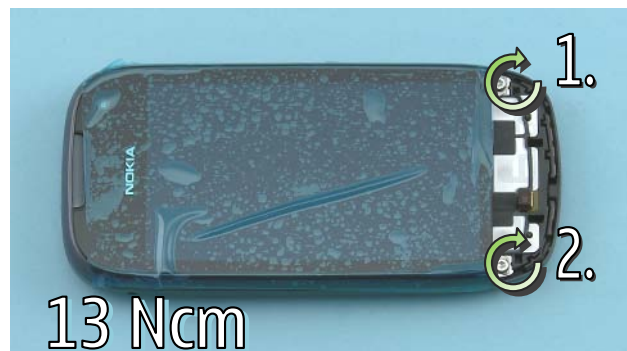
5) Tighten these three TORX + size 6 screws to the torque of 13Ncm in the order shown.



6) Turn the A-COVER over the B-COVER so that the edge of the top side is slightly over the B-COVER.



7) First push the top side of the A-COVER to direction shown and then press down from both sides.



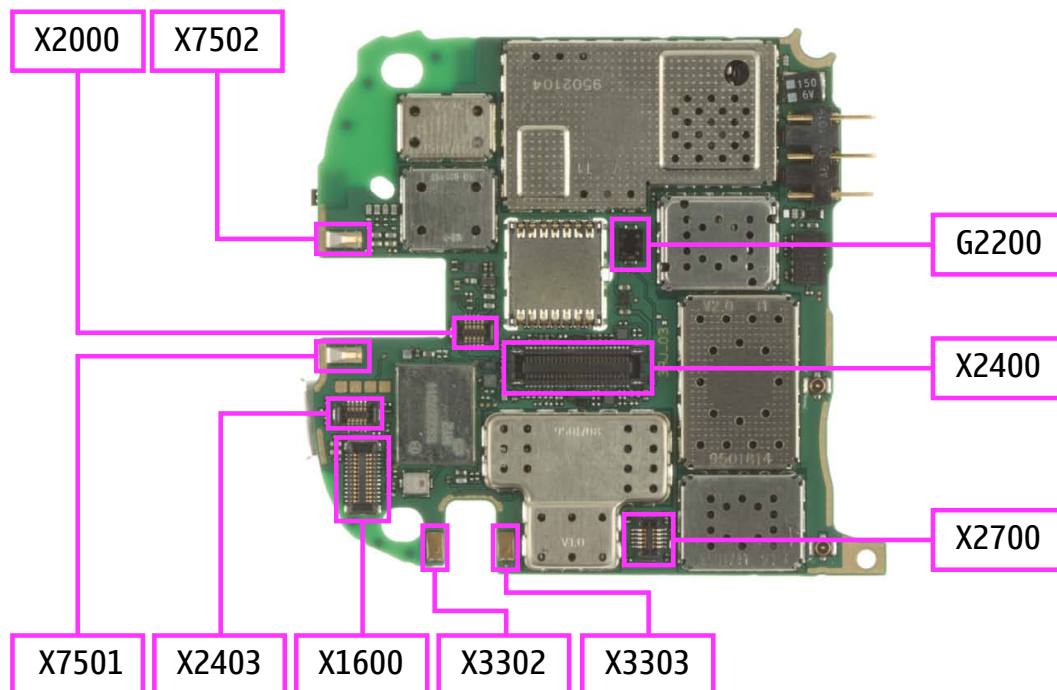
8) Tighten these two TORX + size 6 screws to the torque of 13Ncm in the order shown.



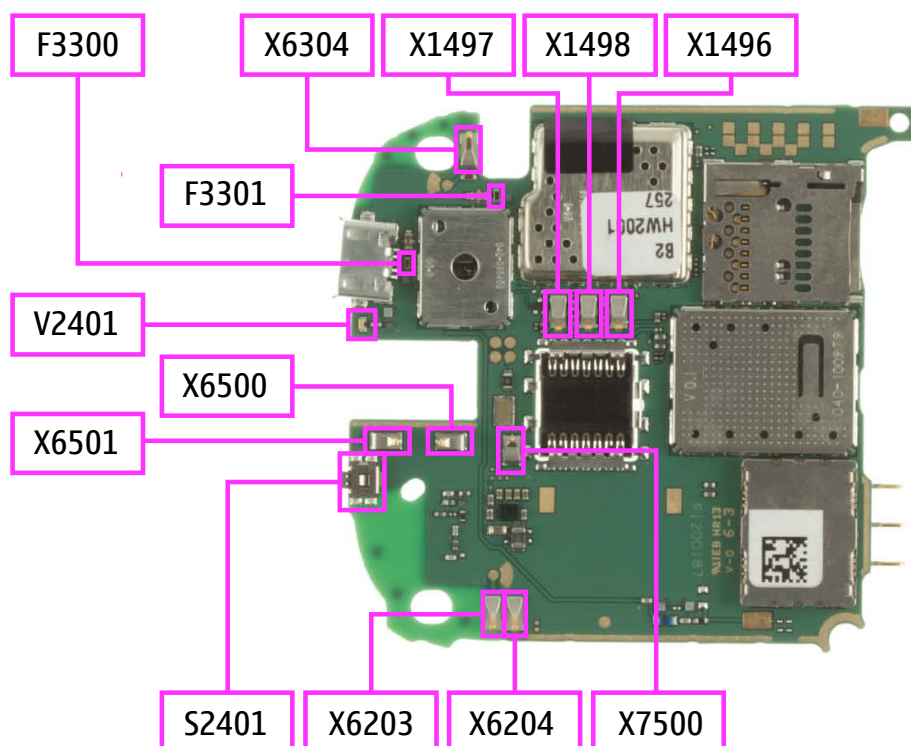
9) Tighten these two TORX + size 4 screws to the torque of 18Ncm in the order shown.

11. SOLDER COMPONENTS

TOP



BOTTOM



Ver. 1.0